IN THE CLAIMS:

Claim 1 (Currently amended) A stretch resistant therapeutic device for release and deployment within a patient's vasculature, comprising:

a vasoocclusive coil having a proximal end and a distal end, said vasoocclusive coil defining a lumen between said proximal and distal ends;

a stretch resistant member extending through said lumen of said vasoocclusive coil, said stretch resistant member having first and second ends, said stretch resistant member being formed of a therapeutic non-metallic fiber material fixedly attached at the first end to said vasoocclusive coil and detachably mountable at the second end to an elongated pusher member to allow for placement of the vasoocclusive coil within the patient's vasculature.

Claim 2 (Original) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant member is formed of a ribbon.

Claim 3 (Cancelled)

Claim 4 (Original) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant member is formed of a braid.

Claim 5 (Original) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant member is formed of a primary wind.

Claim 6 (Original) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant member is formed of a stranded material.

Claim 7 (Original) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant member is formed of a multi-filament material.

Claim 8 (Original) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant member is formed of a twisted multi-filament material.

Claim 9 (Currently amended) The stretch resistant therapeutic device of Claim 1, wherein said ~~stretch resistant member is formed from a~~ therapeutic non-metallic fiber material is selected from the group consisting of silk, collagen, elastin, polyglycolic acid, polylactic acid, poly(D,L-lactic acid-co-glycolic acid), poly(L-lactide), poly(L-lactide-co-D,L-lactide), poly(L-lactide-co-glycolide), poly(glycolide-co-trimethylene carbonate), polyethylene oxide, polydioxanone, polycaprolactone, hylauric acid, polyhydroxylbutyrate, poly(phosphazene), poly(D,L-lactide-co-caprolactone), poly(glycolide-co-caprolactone), polyvinyl alcohol, polyanhydrides thereof, poly(ortho esters) thereof, poly(phoshate esters) thereof, poly(amino acids) thereof, poly(hydroxy butyrates) thereof, copolymers thereof, composites thereof, and combinations thereof.

Claim 10 (Original) The stretch resistant therapeutic device of Claim 9, wherein said therapeutic non-metallic fiber material is a bioactive material.

Claim 11 (Original) The stretch resistant therapeutic device of Claim 9, wherein said therapeutic non-metallic fiber material is bioabsorbable.

Claim 12 (Original) The stretch resistant therapeutic device of Claim 9, wherein said therapeutic non-metallic fiber material is non-absorbable.

Claim 13 (Original) The stretch resistant therapeutic device of Claim 9, wherein a therapeutic agent is absorbed by said therapeutic non-metallic fiber material.

Claim 14 (Currently amended) The stretch resistant therapeutic device of Claim 1, wherein said ~~stretch resistant member is a fiber~~ therapeutic non-metallic fiber material is formed from a polymer selected from the group consisting of an ethylene-octene copolymer, polypropylene, polyethylene, polyacrylate, polyacrylamide, poly(hydroxyethyl methacrylate), polyurethane, polysiloxane, and copolymers thereof.

Claims 15-16 (Cancelled)

Claim 17 (Original) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant member is radiopaque.

Claim 18 (Original) The stretch resistant therapeutic device of Claim 14, wherein the vasoocclusive coil is attached to the first end of the stretch resistant member by heating of the end of the fiber.

Claim 19 (Currently amended) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant therapeutic device is detachably mounted to [[a]] the pusher member.

Claim 20 (Original) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant therapeutic device is releasable for deployment by injection.

Claim 21 (Original) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant therapeutic device is mechanically releasable for deployment.

Claim 22 (Currently amended) The stretch resistant therapeutic device of Claim 1, wherein said stretch resistant therapeutic device is detachably mounted to [[a]] the pusher member by a severable member.

Claim 23 (Original) The stretch resistant therapeutic device of Claim 22, wherein said severable member can be severed by heating of the severable member.

Claim 24 (Original) The apparatus of Claim 1, wherein said vasoocclusive coil includes a displaced coil segment at the proximal end of the vasoocclusive coil, and wherein said stretch resistant member is disposed about said displaced coil segment.

Claim 25 (Currently amended) The stretch resistant therapeutic device of Claim 24, wherein said displaced coil segment of said vasoocclusive coil is detachably mounted to [[a]] the pusher member by a severable member.

Claim 26 (Currently amended) An apparatus for release and deployment of a stretch resistant therapeutic device within a patient's vasculature, comprising:

a vasoocclusive coil having a proximal end and a distal end, said vasoocclusive coil defining a lumen between said proximal and distal ends;

an elongated pusher member having a distal end adjacent to said proximal end of said vasoocclusive coil; and

a stretch resistant member extending through said lumen of said vasoocclusive coil, said stretch resistant member being formed of a therapeutic non-metallic fiber material fixedly attached to said vasoocclusive coil and detachably mounted to the distal end of the elongated pusher member to allow for placement of the vasoocclusive coil within the patient's vasculature.

Claim 27 (Original) The apparatus of Claim 26, wherein said stretch resistant member is formed of a ribbon.

Claim 28 (Cancelled)

Claim 29 (Original) The apparatus of Claim 26, wherein said stretch resistant member is formed of a braid.

Claim 30 (Original) The apparatus of Claim 26, wherein said stretch resistant member is formed of a primary wind.

Claim 31 (Original) The apparatus of Claim 26, wherein said stretch resistant member is formed of a stranded material.

Claim 32 (Original) The apparatus of Claim 26, wherein said stretch resistant member is formed of a multi-filament material.

Claim 33 (Original) The apparatus of Claim 26, wherein said stretch resistant member is formed of a twisted multi-filament material.

Claim 34 (Currently amended) The apparatus of Claim 26, wherein said ~~stretch resistant member is formed from a~~ therapeutic non-metallic fiber material is selected from the group consisting of silk, collagen, elastin, polyglycolic acid, polylactic acid, poly(D,L-lactic acid-co-glycolic acid), poly(L-lactide), poly(L-lactide-co-D,L-lactide), poly(L-lactide-co-glycolide), poly(glycolide-co-trimethylene carbonate), polyethylene oxide, polydioxanone, polycaprolactone, hylauric acid, polyhydroxylbutyrate, poly(phosphazene), poly(D,L-lactide-co-caprolactone), poly(glycolide-co-caprolactone), polyvinyl alcohol, polyanhydrides thereof, poly(ortho esters) thereof, poly(phoshate esters) thereof, poly(amino acids) thereof, poly(hydroxy butyrates) thereof, copolymers thereof, composites thereof, and combinations thereof.

Claim 35 (Original) The apparatus of Claim 34, wherein said therapeutic non-metallic fiber material is a bioactive material.

Claim 36 (Original) The apparatus of Claim 34, wherein said therapeutic non-metallic fiber material is bioabsorbable.

Claim 37. The apparatus of Claim 34, wherein said therapeutic non-metallic fiber material is non-absorbable.

Claim 38 (Original) The apparatus of Claim 34, wherein a therapeutic agent is absorbed by said therapeutic non-metallic fiber material.

Claim 39 (Currently amended) The apparatus of Claim 26, wherein said ~~stretch resistant member is a fiber~~ therapeutic non-metallic fiber material is formed from a polymer selected from the group consisting of an ethylene-octene copolymer, polypropylene, polyethylene, polyacrylate, polyacrylamide, poly(hydroxyethyl methacrylate), polyurethane, polysiloxane, and copolymers thereof.

Claims 40-41 (Cancelled)

Claim 42 (Original) The apparatus of Claim 26, wherein said stretch resistant member is radiopaque.

Claim 43 (Original) The apparatus of Claim 34 or 39, wherein the stretch resistant member has first and second ends, and the vasoocclusive coil is attached to the first end of the stretch resistant member by heating of the end of the fiber.

Claim 44 (Original) The apparatus of Claim 26, wherein said stretch resistant member is detachably mounted to the distal end of the pusher member by at least one loop of fiber material attached to the pusher member.

Claim 45 (Original) The apparatus of Claim 26, wherein said vasoocclusive coil is detachably mounted to the distal end of the pusher member by a displaced segment of the vasoocclusive coil at the proximal end of the vasoocclusive coil.

Claim 46 (Original) The apparatus of Claim 26, wherein said vasoocclusive coil is detachably mounted to the distal end of the pusher member by a loop attached at the proximal end of the coil as a socket.

Claim 47 (Original) The apparatus of Claim 26, wherein said vasoocclusive coil is detachably mounted to the distal end of the pusher member by a loop of fiber connected to the proximal end of the coil and a loop of fiber connected to the stretch resistant member.

Claim 48 (Original) The apparatus of Claim 43, wherein the second end of the stretch resistant member is bonded to the elongated pusher member.

Claim 49 (Original) The apparatus of Claim 26, wherein the proximal end of said vasoocclusive coil includes a distal therapeutic portion and a proximal stem portion, and further comprising means for detaching said stretch resistant member from said distal end of the elongated pusher member, said proximal stem portion including at least one rounded member, and further comprising:

a body of constraining material mounted to the distal end of the elongated pusher member detachably retaining said at least one rounded member; and

means for dislodging said vasoocclusive coil from said body of constraining material.

Claim 50 (Original) The apparatus of Claim 49, wherein said body of constraining material has a stressed configuration engaging said at least one rounded member of the stem proximal portion of the vasoocclusive coil and a recovered configuration withdrawn from said at least one rounded member of the proximal stem portion of the vasoocclusive coil, said body of constraining material being axially stressed in said stressed configuration to engage said proximal stem portion of the vasoocclusive coil, and said means for dislodging said vasoocclusive coil comprises an end portion at the distal end of said elongated pusher member, said end portion contacting the proximal portion of the vasoocclusive coil when said body of constraining material changes from said stressed configuration to said recovered configuration to dislodge said vasoocclusive coil from said body of constraining material.

Claim 51 (Original) The apparatus of Claim 49, wherein said body of constraining material has a stressed configuration engaging said at least one rounded member of the stem proximal portion of the vasoocclusive coil and a recovered configuration withdrawn from said at least one rounded member of the proximal stem portion of the vasoocclusive coil, said body of constraining material being axially and radially stressed in said stressed configuration to engage said proximal stem portion of the vasoocclusive coil, and said means for dislodging said vasoocclusive coil comprises an end portion at the distal end of said elongated pusher member, said end portion contacting the proximal portion of the vasoocclusive coil when said body of constraining material changes from said stressed configuration to said recovered configuration to dislodge said vasoocclusive coil from said body of constraining material.

Claim 52 (Original) The apparatus of Claim 50, wherein said body of constraining material has a tubular cross-section forming a tubular collar extending from its proximal end to its distal end and said end portion is located internally to said tubular collar for, upon shape recovery of said tubular collar, engaging said vasoocclusive coil to dislodge said vasoocclusive coil from said tubular collar.

Claim 53 (Original) The apparatus of Claim 49, wherein said body of constraining material is comprised of a polymer.

Claim 54 (Original) The apparatus of Claim 49, wherein said body of constraining material is comprised of polyurethane.

Claim 55 (Original) The apparatus of Claim 49, wherein said body of constraining material is comprised of a nickel titanium alloy.

Claim 56 (Original) The apparatus of Claim 26, wherein said stretch resistant therapeutic device is releasable for deployment by injection.

Claim 57 (Original) The apparatus of Claim 26, wherein said stretch resistant therapeutic device is mechanically releasable for deployment.

Claim 58 (Original) The apparatus of Claim 26, wherein said stretch resistant member is connected to said elongated pusher member by a severable member, and said severable member can be severed by heating of the severable member.

Claim 59 (Original) The apparatus of Claim 26, further comprising means for detaching said stretch resistant member from said distal end of the elongated pusher member, including:

a connector fiber detachably mounting the vasoocclusive coil to the pusher member for placement of the vasoocclusive coil within the vasculature; and

means for severing said connector fiber disposed adjacent to the connector fiber to cause the connector fiber to release the vasoocclusive coil for deploying the vasoocclusive coil from the pusher member when a desired placement of the vasoocclusive coil within the vasculature is achieved.

Claim 60 (Original) The apparatus of Claim 59, wherein said means for severing said connector fiber comprises an electrical resistance heater wire.

Claim 61 (Original) The apparatus of Claim 59, wherein said connector fiber is formed from a thermoplastic material.

Claim 62 (Original) The apparatus of Claim 59, wherein said connector fiber is formed from polyethylene.

Claim 63 (Original) The apparatus of Claim 26, further comprising means for detaching said stretch resistant member from said distal end of the elongated pusher member, including:

a connector fiber detachably mounting the vasoocclusive coil to the pusher member for placement of the vasoocclusive coil within the vasculature; and

means for severing said connector fiber and said stretch resistant member disposed adjacent to the connector fiber and said stretch resistant member to cause the connector fiber to release the vasoocclusive coil for deploying the vasoocclusive coil from the pusher member when a desired placement of the vasoocclusive coil within the vasculature is achieved.

Claim 64 (Original) The apparatus of Claim 63, wherein said means for severing said connector fiber comprises an electrical resistance heater wire.

Claim 65 (Original) The apparatus of Claim 63, wherein said connector fiber is formed from a thermoplastic material.

Claim 66 (Original) The apparatus of Claim 63, wherein said connector fiber is formed from polyethylene.

Claim 67 (Currently amended) An apparatus for release and deployment of a stretch resistant therapeutic device within a patient's vasculature, comprising:

a vasoocclusive coil having a proximal end and a distal end, said vasoocclusive coil defining a lumen between said proximal and distal ends, and said vasoocclusive coil having a displaced coil segment at the proximal end of the vasoocclusive coil;

a stretch resistant member extending through said lumen of said vasoocclusive coil, said stretch resistant member being formed of a therapeutic non-metallic fiber material fixedly attached to said vasoocclusive coil, and said stretch resistant member being disposed about said displaced coil segment; and

an elongated pusher member having a distal end adjacent to said proximal end of said vasoocclusive coil, said displaced coil segment being detachably mounted to the distal end of the elongated pusher member to allow for placement of the vasoocclusive coil within the patient's vasculature.

Claim 68 (Original) The apparatus of Claim 67, wherein said displaced coil segment of said vasoocclusive coil is detachably mounted to said elongated pusher member by a severable member.

Claim 69 (Original) The apparatus of Claim 67, wherein said stretch resistant member is formed of a ribbon.

Claim 70 (Cancelled)

Claim 71 (Original) The apparatus of Claim 67, wherein said stretch resistant member is formed of a braid.

Claim 72 (Original) The apparatus of Claim 67, wherein said stretch resistant member is formed of a primary wind.

Claim 73 (Original) The apparatus of Claim 67, wherein said stretch resistant member is formed of a stranded material.

Claim 74 (Original) The apparatus of Claim 67, wherein said stretch resistant member is formed of a multi-filament material.

Claim 75 (Original) The apparatus of Claim 67, wherein said stretch resistant member is formed of a twisted multi-filament material.

Claim 76 (Currently amended) The apparatus of Claim 67, wherein said ~~stretch resistant member is formed from a~~ therapeutic non-metallic fiber material is selected from the group consisting of silk, collagen, elastin, polyglycolic acid, polylactic acid, poly(D,L-lactic acid-co-glycolic acid), poly(L-lactide), poly(L-lactide-co-D,L-lactide), poly(L-lactide-co-glycolide), poly(glycolide-co-trimethylene carbonate), polyethylene oxide, polydioxanone, polycaprolactone, hylauric acid, polyhydroxylbutyrate, poly(phosphazene), poly(D,L-lactide-co-caprolactone), poly(glycolide-co-caprolactone), polyvinyl alcohol, polyanhydrides thereof, poly(ortho esters) thereof, poly(phoshate esters) thereof, poly(amino acids) thereof, poly(hydroxy butyrates) thereof, copolymers thereof, composites thereof, and combinations thereof.

Claim 77 (Original) The apparatus of Claim 76, wherein said therapeutic non-metallic fiber material is a bioactive material.

Claim 78 (Original) The apparatus of Claim 76, wherein said therapeutic non-metallic fiber material is bioabsorbable.

Claim 79 (Original) The apparatus of Claim 76, wherein said therapeutic non-metallic fiber material is non-absorbable.

Claim 80 (Original) The apparatus of Claim 76, wherein a therapeutic agent is absorbed by said therapeutic non-metallic fiber material.

Claim 81 (Currently amended) The apparatus of Claim 67, wherein said ~~stretch resistant member is a fiber~~ therapeutic non-metallic fiber is formed from a polymer selected from the group consisting of an ethylene-octene copolymer, polypropylene, polyethylene, polyacrylate, polyacrylamide, poly(hydroxyethyl methacrylate), polyurethane, polysiloxane, and copolymers thereof.

Claims 82-83 (Cancelled)

Claim 84 (Original) The apparatus of Claim 67, wherein said stretch resistant member is radiopaque.

Claim 85 (Original) The apparatus of Claim 81, wherein the vasoocclusive coil is attached to the first end of the stretch resistant member by heating of the end of the fiber.

Claim 86 (Currently amended) The apparatus of Claim 67, wherein said stretch resistant therapeutic device is detachably mounted to [[a]] the pusher member.

Claims 87-88 (Cancelled)

Claim 89 (Currently amended) The apparatus of Claim 67, wherein said stretch resistant therapeutic device is detachably mounted to [[a]] the pusher member by a severable member.